UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,753	09/12/2003	John M. Koegler III	200310760-1	8167

22879 7590 05/23/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
LAMB, CHRISTOPHER RAY	
ART UNIT	**PAPER NUMBER**
2627	

NOTIFICATION DATE	DELIVERY MODE
05/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/661,753	KOEGLER ET AL.	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-5,7-10,12-15,17,20-25 and 33-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5,7-10,12-15,17,20-25 and 33-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2, 4, 5, 6, 8, 10, 20, 23-25, 34-38, 45-56, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda (US 2002/0191517) in view of Klein (US 6,145,368), and further in view of Satoh (US 5,119,363).

The claims will be addressed in order of dependency rather than numerical order.

Regarding claim 5:

Honda discloses:

An optical disk, comprising:

a label region on the optical disk comprising a writeable material (paragraph 30).

Honda does not disclose:

"substantially identical disk speed features, disposed on the disk in a first annular ring at a first radial position and located to be readable when writing the label region, to convey disk speed data; and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring at a second radial position different from the first radial position and located to be readable when writing to the label region, to convey disk angular orientation data, wherein at least some of the disk angular orientation

features and at least some of the disk speed features have an overlapping angular position, and wherein the first annular ring abuts the second annular ring."

However, note that Honda does disclose tracking the disk speed (paragraph 37) and the angular orientation (paragraph 38).

Klein discloses:

substantially identical disk speed features, disposed on the disk in a first annular ring at a first radial position, to convey disk speed data (Fig. 2: 104; column 1, lines 25-45); and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring at a second radial position different from the first radial position (Fig. 2: 102) to convey disk angular orientation data (column 1, lines 24-45), wherein at least some of the disk angular orientation features and at least some of the disk speed features have an overlapping angular position (apparent from Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda substantially identical disk speed features, disposed on the disk in a first annular ring at a first radial position and located to be readable when writing the label region, to convey disk speed data; and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring at a second radial position different from the first radial position and located to be readable when writing to the label region, to convey disk angular orientation data, wherein at least some of the disk angular orientation

features and at least some of the disk speed features have an overlapping angular position.

The motivation would have been to measure the disk speed and angular orientation directly from the disk, improving accuracy.

Honda in view of Klein does not disclose:

(A) "wherein the first annular ring abuts the second annular ring," or

(B) "wherein the annular rings are proximate a central hub of the disc."

Regarding (A):

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein wherein the second annular ring abuts the first annular ring.

The rationale is as follows:

Whether the first annular ring abuts the second annular ring makes no difference to its purpose: the speed and angular tracking works no better or worse whether the rings abut or not.

Furthermore, applicant's specification, as originally filed, does not disclose any benefit or reason to have the rings abut one another. Applicant merely discloses embodiments where they abut (as per Fig. 1) and other embodiments where they do not (as per Fig. 2).

It has been held (see, e.g., *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)) that shifting the position of a part is obvious when it does not modify the operation of the invention. Therefore shifting the position of the annular rings of Honda

in view of Klein so that they abut would have been obvious to one of ordinary skill in the art at the time of the invention.

The motivation to abut them could have been aesthetic (one of ordinary skill might believe adjacent rings to be more visually appealing), or to save space (two abutting rings use less space on the disc than two with a space between them).

Regarding (B):

Satoh discloses wherein an annular ring used to track disc speed data and disc angular orientation data is proximate a central hub of the disk (Fig. 8; column 6, lines 2-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein where the annular rings are proximate a central hub of the disk.

The rationale is as follows:

Honda in view of Klein discloses the rings; Satoh shows putting rings proximate the central hub is a known technique; and one of ordinary skill could have combined these two teachings together with predictable results.

Regarding claim 2:

In Honda in view of Klein, and further in view of Satoh, the label region is on a label side of the optical disk (Honda paragraph 30).

Regarding claim 4:

In Honda in view of Klein, and further in view of Satoh, the optical disc includes a data side and a label side (Honda paragraph 30).

Regarding claim 8:

In Honda in view of Klein, and further in view of Satoh, the disk angular orientation features are molded (they are slits in the disk so they must be molded).

Regarding claim 10:

In Honda in view of Klein, and further in view of Satoh, the disk speed features are molded (they are slits in the disk so they must be molded).

Regarding claim 34:

In Honda in view of Klein, and further in view of Satoh, all the disk speed features have a substantially identical size and shape (apparent from Klein Fig. 2), and at least some of the disk angular orientation features have a different size or shape from the disk speed features (apparent from Klein Fig. 2).

Regarding claim 35:

In Honda in view of Klein, and further in view of Satoh, at least some of the disk angular orientation features have a different size from others of the disk angular orientation features (apparent from Klein Fig. 2).

Regarding claim 36:

In Honda in view of Klein, and further in view of Satoh, a pattern formed by the disk angular orientation features is not symmetrical about at least some axes extending outward from the center of the disk (apparent from Klein Fig. 2: since they are different sizes, the pattern is not symmetrical).

Regarding claim 37:

In Honda in view of Klein, and further in view of Satoh, a pattern formed by the disk angular orientation features about at least some axes extending outward from the center of the disk is different from the pattern formed by the disk angular orientation features about at least some other axes extending outward from the center of the disk (apparent from Klein Fig. 2).

Regarding claim 38:

In Honda in view of Klein, and further in view of Satoh, an angular span of each disk speed feature is substantially identical to an angular span between each two disk speed features (apparent from Klein Fig. 2).

Regarding claim 51:

In Honda in view of Klein, and further in view of Satoh, the location of the annular rings maximizes the size of a continuous area of the label region (since the rings are abutting, this is true).

Regarding claim 52:

In Honda in view of Klein, and further in view of Satoh, the label region has a ring shape that extends from an inner radial position to an outer radial position, and at least one of the first and second radial positions is closer than the inner radial position to the central hub (in Honda the label region was the entire disc: since now there are two rings for tracking, the label region has a ring shape outside the tracking area. Since the rings are proximate the central hub, they must be closer than the label to it).

Regarding claims 20, 23-25, and 53-56:

All elements positively recited have been identified with respect to earlier claims. No further elaboration is necessary.

Regarding claim 46:

Honda in view of Klein, and further in view of Satoh, discloses an optical disc as discussed above.

Honda in view of Klein, and further in view of Satoh, does not disclose "wherein the first radial position is nearer the central hub of the disk than the second radial position."

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Satoh, wherein the first radial position is nearer the central hub of the disk than the second radial position.

The rationale is as follows:

Which of the two annular rings is closer to the central hub of the disk makes no difference to its purpose: the speed and angular tracking work no better or worse no matter which ring is inside or outside.

Furthermore, the applicant's specification, as originally filed, does not disclose any benefit or reason to have one ring inside the other.

It has been held (see, e.g., *In re Japikse,* 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)) that shifting the position of a part is obvious when it does not modify the operation of the invention.

In this case there are only two possibilities: the first radial position is inside the second, or the second radial position is inside the first. With only two combinations, both

solutions would have been obvious to one of ordinary skill in the art, and one of ordinary skill could have pursued the solution wherein one ring is inside the other with a reasonable expectation of success.

Therefore shifting the position of the annular rings of Honda in view of Klein, and further in view of Satoh, so that the first radial position is nearer the central hub of the disk than the second radial position, would have been obvious.

Regarding claims 47 and 48:

These claims are similar to claim 46 and similarly rejected.

Regarding claims 49, 50, and 57-60:

All elements positively recited have already been identified with respect to earlier rejections. No further elaboration is necessary.

Regarding claim 61:

In Honda in view of Klein, and further in view of Satoh, at least some of the disk angular orientation features are of different sizes (apparent from Klein Fig. 2).

3. Claims 3, 7, 12, 14, 15, 22, 33, 17, 39-41, and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Klein, and further in view of Satoh, as applied to the claims above, and further in view of Osborne (US 5,107,107).

Regarding claim 7:

Honda in view of Klein, and further in view of Satoh, discloses an optical disk as discussed above.

Honda in view of Klein, and further in view of Satoh, does not disclose wherein the disk angular orientation features are defined in a mirror region of the label side of

the optical disk. Honda in view of Klein, and further in view of Satoh, discloses a transmissive scheme for the disk angular orientation features: light passes through slits and is measured on the other side of the disk.

Osborne discloses an alternative to a transmissive scheme: a reflective scheme wherein the disk features are pits defined in a reflective, or mirror region (column 6, lines 10-65). Osborne discloses that it is more sophisticated.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Satoh, wherein the disk angular orientation features are defined in a mirror region of the label side of the optical disk.

The motivation would have been to use a more sophisticated scheme. Also, because the reflective scheme taught by Osborne does not require slits through the disk, Osborne's method has more surface area on the opposite side of the disk, the data side, which would allow more data to be recorded.

Regarding claim 3:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the disk speed features are configured to deflect incoming light (as discussed above).

Regarding claims 12:

As discussed above, Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, comprising a surface, distinct from the writable material, having markings to indicate disk angular orientation.

Regarding claim 14:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, does not disclose "wherein the markings comprise interspersed areas with and without substantially circular molded pits."

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses molded pits, just not that they are "substantially circular."

However, Osborne disclose that in an optical disc information can be indicated through a substantially circularly molded pit that (column 8, lines 35-50).

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Klein, and further in view of Osborne, wherein the second signal results when light is reflected by a substantially circular molded pit, as further taught by Osborne.

The rationale is as follows:

Using substantially circular molded pits to indicate information by monitoring a reflected light signal is the fundamental premise of all optical recording media, as attested by Osborne. Therefore one of ordinary skill in the art could certainly have created substantially circularly molded pits to create the signal required by Honda in view of Klein, and further in view of Osborne, with predictable results.

Regarding claim 15:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the molded pits define a light-deflecting feature (Osborne: column 6, lines 10-65).

Regarding claim 22:

This claim is similar to claim 14 and is similarly rejected.

Regarding claim 33:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, does not disclose wherein the first annular ring is configured for reading by an encoder and the second annular ring is configured for reading by an OPU.

Osborne compares a conventional encoder and an OPU. Osborne concludes that using an OPU can overcome the weaknesses of a conventional encoder (column 11, lines 25-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, wherein the first annular ring is configured for reading by an encoder and the second annular ring is configured for reading by an OPU.

The motivation would have been to avoid the weaknesses of a conventional encoder when reading the second annular ring.

Regarding claim 17:

All elements positively recited have already been identified with respect to earlier claims. No further elaboration is necessary.

Regarding claim 39:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the light-deflecting feature has a surface that is not perpendicular to incoming light applied to read the markings (at the very least the walls of the pit are parallel to, rather than perpendicular to, the incoming light).

Regarding claim 40:

In Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, the molded pits deflect both coherent and incoherent light (both types of light would be deflected by the pits).

Regarding claims 41 and 43-45:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses all elements positively recited in these claims as discussed with regards to previous rejections.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Klein, and further in view of Satoh, and further in view of Osborne as applied to the claims above, and further in view of Bugner et al. (US 6,109,324).

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses an optical disk as discussed above.

Honda in view of Klein, and further in view of Osborne, does not disclose wherein the disk angular orientation features comprise markings within the label region.

Bugner discloses printing a disk angular orientation feature (column 3, line 65 to column 4, line 10: this then, is a disk angular orientation feature that comprises markings within the label region). Bugner discloses that this allows a secondary image to be printed in registration with the primary image (column 4, lines 1-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein, and further in view of Osborne, wherein the disk angular orientation features comprise markings within the label region.

The motivation would have been to allow printing a secondary image in alignment with a primary image.

5. Claims 13, 21, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Klein, and further in view of Satoh, and further in view of Osborne as applied to the claims above, and further in view of Nagashima (US 5,670,947).

Regarding claim 13:

Honda in view of Klein, and further in view of Satoh, and further in view of Osborne, discloses an optical disk wherein the markings define a light-deflecting feature, as discussed above.

Honda in view of Klein, and further in view of Osborne, does not disclose wherein the markings comprise a molded saw tooth to deflect light from a sensor.

Nagashima discloses a molded saw tooth can deflect light from a sensor (column 3, lines 25-45).

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Klein, and further in view of Osborne, wherein the light-deflecting features are a molded saw tooth to deflect light from a sensor, because a molded pit and a molded saw tooth are used in the same environment, for the same purpose, and achieve the same result.

Regarding claim 21 and 42:

All elements positively recited have already been identified with respect to earlier rejections. No further elaboration is necessary.

6. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honda (US 2002/0191517) in view of Klein (US 6,145,368).

Regarding claim 49:

This claim was rejected as unpatentable over Honda in view of Klein and further in view of Satoh above; this is an alternate rejection of the claim.

Honda discloses:

An optical disk, comprising:

a label region on the optical disk comprising a writeable material (paragraph 30).

Honda does not disclose:

"substantially identical disk speed features, disposed on the disk in a first annular ring, to convey disk speed data; and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring."

However, note that Honda does disclose tracking the disk speed (paragraph 37) and the angular orientation (paragraph 38).

Klein discloses:

substantially identical disk speed features, disposed on the disk in a first annular rin, to convey disk speed data (Fig. 2: 104; column 1, lines 25-45); and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring (Fig. 2: 102) to convey disk angular orientation data (column 1, lines 24-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda substantially identical disk speed features, disposed on the disk in a first annular ring,, to convey disk speed data; and

disk angular orientation features different from the disk speed features, disposed on the disk in a second annular ring, to convey disk angular orientation data.

The motivation would have been to measure the disk speed and angular orientation directly from the disk, improving accuracy.

Honda in view of Klein does not disclose:

"wherein the first annular ring abuts the second annular ring and is nearer a central hub of the disk than the second annular ring."

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Honda in view of Klein wherein the second annular ring abuts the first annular ring and is nearer a central hub of the disk than the second annular ring.

The rationale is as follows:

Whether the first annular ring abuts the second annular ring, and which ring is nearer the center of the disc, makes no difference to its purpose: the speed and angular tracking works no better or worse whether the rings abut or not.

Furthermore, applicant's specification, as originally filed, does not disclose any benefit or reason to have the rings abut one another. Applicant discloses embodiments where they abut (as per Fig. 1) and other embodiments where they do not (as per Fig. 2).

It has been held (see, e.g., *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)) that shifting the position of a part is obvious when it does not modify the operation of the invention. Therefore shifting the position of the annular rings of Honda in view of Klein so that they abut would have been obvious to one of ordinary skill in the art at the time of the invention.

The motivation for abutting the rings could have been aesthetic (one of ordinary skill might have thought abutting rings looked better), or to save space (two abutting rings take up less space than two rings with a space between them).

Since one ring must be inside the other, and there are only two possible combinations. With only two combinations, both solutions would have been obvious to one of ordinary skill in the art, and one of ordinary skill could have pursued the solution wherein one ring is inside the other with a reasonable expectation of success.

Response to Arguments

7. Applicant's arguments filed January 27th, 2008 have been fully considered but they are not persuasive.

Applicant makes numerous arguments. Each will be addressed in turn.

First, Applicant argues that shifting the position of the rings of Honda in view of Klein would modify the operation by "changing the size of the continuous, uninterrupted area of the label region."

Applicant goes on to argue that the larger the label region, the more text, graphics, and/or image information can be written to it.

These arguments are not persuasive for several reasons.

First, whether the label region has a continuous, uninterrupted area, or one discontinuous is merely an aesthetic choice. The operation of the invention (i.e., the ability to track speed and/or angle of the disc) does not change whether the label region is continuous or not.

Secondly, the difference in usable area between a label region where the rings are abutting and proximate the central ring and one where they are not is marginal. Applicant does not disclose printing large amounts of information on the label side of the disc: indeed the drawings only show a few words written on the label side. Those few words could be written whether the rings abut or not, and whether they are proximate the central rim or not. Again, the operation of the device is unchanged.

Third, Applicant's argument that abutting rings maximizes the continuous space for a label would have been obvious to one of ordinary skill in the art at the time of the invention. This argument was not disclosed in Applicant's original specification: Applicant is merely arguing it now based upon common sense. Certainly one of ordinary skill in this highly technical field would have been aware that two abutting rings take up less space than two separated rings, and could have moved the rings with predictable results. This element is neither so technically complicated nor so radical as to require "hindsight reasoning" to achieve, and therefore Applicant's own argument provides even more motivation for modifying Honda in view of Klein.

Applicant continues to argue that "the image quality of the writing would undesirably suffer because of the visual discontinuity in the writing." Again, this is a matter of aesthetics: one person might consider a continuous label region to be prettier, and one

might consider a discontinuous label region to be prettier. It has nothing to do with whether the apparatus can track the speed and/or angle.

Applicant continues this argument by stating "the degradation of image quality is well known to be an important consideration to users of visual matter of all kinds." If this is a well known fact, than again, this only provides further motivation to modify Honda in view of Klein in this way. Since moving the rings does not require any further engineering modification, it is certainly within the level of ability of one of ordinary skill in the art.

Applicant next argues that the Examiner did not provide a motivation or reason to abut the rings of the Klein reference. To clarify this issue, the motivation has been more clearly discussed in the rejection above, and additionally, Applicant's own arguments provide plenty of motivation. Applicant cannot seriously be contending that positioning two items next to one another on a disc would never occur to one of ordinary skill.

Next, Applicant argues that repositioning the rings of Klein would result in an inoperative device. Applicant argues that the disk of Klein is much smaller than a CD or DVD, positioning the rings on the inner hub would reduce the number of openings and diminish the resolution and accuracy of the measurements.

However, in the combination relied upon, the rings of Klein have been added to the optical disc of Honda. Since the optical disc of Honda is a CD or DVD, and therefore larger than the original disc taught by Klein alone, positioning the rings on the inner hub would not cause a detrimental affect. Furthermore, even if the resolution and accuracy

were reduced, the combination would still function -- it wouldn't be inoperative, as Applicant argues.

Applicant next argues that Satoh "teaches away from the combination." Applicant argues at length about the grooves in the tracks in Satoh. However, since Satoh was only relied upon to teach positioning an annular ring proximate the central hub of the disc, this argument is irrelevant: none of the details of Satoh that Applicant argues about have anything to do with the combination used to reject the claims.

Applicant applies the same arguments to claims 20, 25, 49, etc.: they are no more persuasive with regards to those claims.

Applicant then argues with the rejection of claim 46, arguing that it is not obvious to reposition the two rings of Klein so that the speed features are inside the angular features. Applicant argues that there is an advantage gained from the claimed positions: i.e., maximizing the size of the label region, and references part of the specification to support this point.

However, these sections of the specification do not support the argument: they merely say that the two rings could be positioned somewhere that can be read by an encoder rather than OPU, but which ring is outside the other makes no difference to this argument. Moreover, with only two possibilities: ring A outside ring B, or ring B outside ring A, there is no possible way whatsoever that it would not occur to one of ordinary skill that the two could be switched.

Applicant next makes a few generic arguments about "impermissible" use of hindsight with regards to the remaining rejections.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Finally, Applicant essentially repeats their earlier arguments with regards to claim 49: these arguments are not persuasive here either.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit 2627

CRL 5/12/08